

INTERNATIONAL SEARCH REPORT

 International application No.
 PCT/JP03/08713

A. CLASSIFICATION OF SUBJECT MATTER

 Int.Cl.⁷ B01J21/06, B01D53/94, B01J23/58, B01J32/00, F01N3/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

 Int.Cl.⁷ B01J21/00-38/74

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1095702 A1 (TOYOTA JIDOSHA KABUSHIKI KAISHA), 02 May, 2001 (02.05.01), Claims 1, 3; examples & WO 00/283 A1 Claims 1, 3; examples	1-7
X	EP 1078678 A2 (MITSUBISHI JIDOSHA KOGYO KABUSHIKI KAISHA), 28 February, 2001 (28.02.01), Claims 8, 16; Par. Nos. [0019], [0050], [0051]; Fig. 9 & JP 2001-129402 A Claim 1; Par. Nos. [0023], [0029], [0030]; Fig. 3 & US 6537946 B1	1, 4-7

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:

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"E" earlier document but published on or after the international filing date

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"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

 Date of the actual completion of the international search
 29 September, 2003 (29.09.03)

 Date of mailing of the international search report
 14 October, 2003 (14.10.03)

 Name and mailing address of the ISA/
 Japanese Patent Office

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002-95968 A (TOYOTA JIDOSHA KABUSHIKI KAISHA), 02 April, 2002 (02.04.02), Claim 1; Par. Nos. [0014], [0016], [0017], [0020] (Family: none)	1-7